

**ABSTRACT**

The method is used for controlling an actuating mechanism of a prosthesis provided on one side of the lower body of an individual, the individual having a healthy leg on the other side. Accordingly, the method comprises providing a plurality of artificial proprioceptors, at least one of the artificial proprioceptors being on the side of the healthy leg, and at least one of the artificial proprioceptors being on provided with the prosthesis, generating data signals in real time at the artificial proprioceptors, and generating control signals in real time for controlling the actuating mechanism in response to the data signals.